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**Amendments to the claims:**

- 1-21. (Canceled)
22. (Currently amended): Isolated nucleic acid which encodes (a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 3 or (b) ~~a polypeptide comprising an amino acid sequence that is at least 90% similar thereto and exhibits the same biological function, or a fragment of either which exhibits prolyl oligopeptidase activity, or~~ which is complementary to any one of the foregoing.
23. (Previously presented): The isolated nucleic acid of claim 22 which is DNA or RNA.
24. (Currently amended): The isolated nucleic acid of claim 22 which is a ~~DNA~~ transcript ~~that includes of~~ the entire length of SEQ ID NO: 4 or DNA which is complementary to the entire coding region of SEQ ID NO: 4.
25. (Currently amended): An antisense oligonucleotide ~~directed against the DNA of claim 24 comprising fragment nucleic acid of claim 22 which fragment inhibits expression of prolyl oligopeptidase.~~
26. (Currently amended): The isolated nucleic acid of claim 22 which is an RNA transcript ~~which includes of~~ the entire length of SEQ ID NO: 4.
27. (Previously presented): A mammalian, insect or bacterial host cell which comprises an expression vector comprising the nucleic acid of claim 22 encoding a polypeptide having the entire amino acid sequence set forth in SEQ ID NO: 3 which nucleic acid is operably linked to a promoter.

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28. (Previously presented): An isolated recombinant polynucleotide molecule comprising nucleic acid according to claim 22 plus expression-controlling elements linked operably with said nucleic acid to drive expression thereof.

29. (Currently amended): A mammalian, insect or bacterial host cell that has been genetically engineered by the insertion of nucleic acid according to claim 22 which codes for a protein-portion of the fragment amino acid sequence of SEQ ID NO: 3 which exhibits prolyl oligopeptidase activity.

30. (Previously presented): The process for producing a polypeptide which includes a portion of SEQ ID NO: 3 exhibiting prolyl oligopeptidase activity, which process comprises culturing the host cell of claim 29 under conditions sufficient for the production of said polypeptide.

31. (Previously presented): The process of claim 30 wherein said polypeptide is expressed at the surface of said cell and further includes the step of recovering the polypeptide or a fragment thereof from the culture.

32-34. (Canceled)

35. (Previously presented): Isolated nucleic acid which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 3 or a fragment thereof which exhibits prolyl oligopeptidase activity, or which is complementary thereto.

36. (Previously presented): The isolated nucleic acid of claim 35 which is DNA.

37. (Currently amended): An antisense oligonucleotide ~~directed against the DNA of claim 36~~ comprising a fragment of nucleic acid of claim 35 which fragment inhibits expression of prolyl oligopeptidase.

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38. (Currently amended): The isolated nucleic acid of claim 35 which is an RNA transcript ~~which includes~~ of the entire length of SEQ ID NO: 4.

39. (Canceled)

40. (Previously presented): An isolated recombinant polynucleotide molecule comprising nucleic acid according to claim 35 plus expression-controlling elements linked operably with said nucleic acid to drive expression thereof.

41. (Currently amended): A mammalian, insect or bacterial host cell that has been genetically engineered by the insertion of nucleic acid according to claim 35 which codes for a ~~protein-portion~~ fragment of the amino acid sequence of SEQ ID NO: 3 which exhibits prolyl oligopeptidase activity.

42. (Previously presented): A process for producing a polypeptide which includes a portion of SEQ ID NO: 3 exhibiting prolyl oligopeptidase activity, which process comprises culturing the host cell of claim 41 under conditions sufficient for the production of said polypeptide.

43. (Previously presented): The polypeptide comprising the protein portion of SEQ ID NO: 3 produced by the process of claim 42.

44. (Previously presented): A mammalian, insect or bacterial host cell which comprises an expression vector comprising the nucleic acid of claim 35 encoding a polypeptide having the entire amino acid sequence set forth in SEQ ID NO: 3 operably linked to a promoter.